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1  /*
2  Display.h - A simple track GPS to SD card logger. Display module.
3  TinyTrackGPS v0.13
4
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7
8  rafael.reyes.carmona@gmail.com
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24 */
25
26 #if ARDUINO >= 100
27   #include "Arduino.h"
28 #else
29   #include "WProgram.h"
30 #endif
31
32 #ifndef Display_h
33 #define Display_h
34
35 #include "config.h"
36
37 #if defined(DISPLAY_TYPE_LCD_16X2)
38   #include <LiquidCrystal.h>
39 #elif defined(DISPLAY_TYPE_LCD_16X2_I2C)
40   #include <LiquidCrystal_I2C.h>
41 #elif defined(DISPLAY_TYPE_SDD1306_128X64) || defined(DISPLAY_TYPE_SH1106_128X64)
42   #define U8X8_HAVE_HW_I2C
43   #include <U8x8lib.h>
44   // #include <U8g2lib.h>
45 #elif defined(DISPLAY_TYPE_SDD1306_128X64_lcdgfx)
46   #include <lcdgfx.h>
47   #include <lcdgfx_gui.h>
48 #endif
49
50 enum Display_Type {
51     SDD1306_128X64,    // Para usar pantalla OLED 0.96" I2C 128x64 pixels
52     LCD_16X2,          // Para usar LCD 16 x 2 caracteres.
53     LCD_16X2_I2C       // Para usar LCD 16 x 2 caracteres. I2C.
54 };
55
56 class Display {
57     private:
58         // byte _offset;
59         byte _width;    // Width pixels or numbers of columns for LCD.

```

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60     byte _height;           // Height pixels os numbers of rows for LCD.
61     Display_Type _screen;
62     #if defined(DISPLAY_TYPE_LCD_16X2)
63         LiquidCrystal* lcd;
64     #elif defined(DISPLAY_TYPE_LCD_16X2_I2C)
65         LiquidCrystal_I2C* lcd;
66     #elif defined(DISPLAY_TYPE_SDD1306_128X64)
67         //U8G2_SSD1306_128X64_NONAME_1_HW_I2C* u8g2_SSD1306;
68         U8X8_SSD1306_128X64_NONAME_HW_I2C* u8x8_SSD1306;
69     #elif defined(DISPLAY_TYPE_SH1106_128X64)
70         U8X8_SH1106_128X64_NONAME_HW_I2C* u8x8_SH1106;
71     #elif defined(DISPLAY_TYPE_SDD1306_128X64_lcdgfx)
72         DisplaySSD1306_128x64_I2C* display;
73     #elif defined(DISPLAY_TYPE_HX1230_96X68)
74         U8G2_HX1230_96X68_1_3W_SW_SPI* u8g2_HX1230;
75     #endif
76
77     public:
78         Display(Display_Type t = SDD1306_128X64);
79         Display() = delete;                                     // Constructor por defecto.
80         Display(const Display&) = delete;                       // Constructor de copia.
81
82         void start();
83         void clr();
84         void print(int, int, const char[]);
85         void print(int, const char[]);
86         void print(const char[]);
87         void print(const char[], const char[]);
88         void print(const char[], const char[], const char[]);
89         void print(const char[], const char[], const char[], const char[]);
90         void wait_anin(unsigned int);
91         void draw_wait(byte);
92         void print_PChar(byte);
93         void DrawLogo();
94         void drawbattery(uint8_t);
95         Display_Type display_type(){return _screen;};
96 };
97
98 extern const uint8_t TinyTrackGPS_font8x16[] PROGMEM;
99
100 #endif

```